THE STRUCTURE OF SOCIAL MOVEMENTS: ENVIRONMENTAL ACTIVISM AND ITS OPPONENTS

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Editors' abstract. Get ready for the "SPIN cycle." Gerlach (University of Minnesota) provides an excellent summary on the organizational and strategic dynamics that characterize all manner of "segmented, polycentric, integrated networks" found in American social movements. This is one of the few studies that discusses social movements from a thoroughgoing network perspective. We believe that many of his observations also apply across the range of "uncivil-society" actors. This chapter stems from his contribution[1] to Jo Freeman's and Victoria Johnson's edited volume, Waves of Protest *(1999), Lanham, Mass.: Rowman and Littlefield, a study of social movements since the 1960s. Reprinted by permission.*

In the late 1960s Virginia H. Hine and I examined the structure of several social movements. We found that the most common type of organization was neither centralized and bureaucratic nor amorphous, but one that was a segmentary, polycentric, and integrated network (acronym SPIN) (Gerlach and Hine, 1970, 1973; Gerlach, 1971/1983).

- Segmentary: Composed of many diverse groups, which grow and die, divide and fuse, proliferate and contract.

- Polycentric: Having multiple, often temporary, and sometimes competing leaders or centers of influence.

- Networked: Forming a loose, reticulate, integrated network with multiple linkages through travelers, overlapping membership,

joint activities, common reading matter, and shared ideals and opponents.

We proposed that this segmentary, polycentric, and networked organization was more adapted to the task of challenging and changing society and culture than was centralized organization. At the time, even social movement participants did not fully appreciate the strengths of SPIN organization, believing that anything other than a centralized bureaucracy was either disorganized or an embryonic organization. Since then a consensus has emerged that SPINs have many benefits, and not just for social movements. This chapter revisits and supplements our analysis. Although examples abound from many movements since the 1960s, I will feature examples from the environmental movement (once called the ecology movement), and the Wise Use (property rights) movement, which opposes environmental activism. First we will examine each characteristic of a SPIN.

SEGMENTARY

Social movements have many organizationally distinct components that change through fission, fusion, and new creation. A typical SPIN is composed of semiautonomous segments. New segments are created by splitting old ones, by appending new segments, or by splitting and adding new functions. Segments overlap and intertwine complexly, so that many people are members of several segments at the same time. A person may be a leader in one segment and a follower in another.[2] When we examined what we then called the "participatory ecology" movement in 1969–1970, we found that movement groups included the following:

- Regional and local branches of bureaucratically structured national and international institutions that had been founded many years previously. These included the Sierra Club (1892), the Audubon Society (1905), the Wilderness Society (1935), the National Wildlife Federation (1936), and the Isaac Walton League (1922).

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[2]In being so differentiated in structure and role, these movement segments are unlike the segments of classical segmentary lineage systems in "tribal" Africa, which are like each other and unspecialized.

- Recently formed alternatives to these established institutions, notably the Environmental Defense Fund (1967), Friends of the Earth (1968), and Zero Population Growth (1968).

- A plethora of groups even more radical in ideology and/or tactics, with names such as the People's Architects, the Food Conspiracy, Ecology Action, Ecology Freaks, and Ecology Commandoes.

- A mushrooming array of small and local groups that people were forming in communities across the country to challenge the construction in their neighborhoods of power plants, jetports, dams, incinerators and other industrial facilities, and real estate development projects.

The ecology movement continued to move, grow, change, and promote change. Sometime in the late 1970s people began to refer to it as environmentalism. In the late 1980s and early 1990s the European term "the Greens" became popular. Today, what remains is usually called the environmental movement or the Green movement.

Why Groups Divide

Some groups divide when their participants differ over ideology and tactics. Some deliberately spin off new cells. Others are created by new people inspired by movement ideology or provoked by similar conditions. We have identified four factors that contribute to this process of segmentation.

1. *Personal power* is often a component of movement belief systems. In charismatic religious movements, participants believe that they can have direct access to God and this will empower them. The environmental movement exhorts participants to "think globally, act locally," and not to be dissuaded by those who claim that there is not enough expert agreement to support action. In all of these movements, individuals and small or local groups each feel the need to take the initiative in achieving those movement goals the person or group considers important. They don't wait to be asked. This helps produce divisions among persons and groups over ideology and tactics. It also motivates these participants to recruit others to support their competing ventures. For example, the Earth Liberation Front (ELF), a radical group that advocates and takes credit for the sabotage

of development projects that threaten the natural environment, advertises on its web site that anyone can begin taking such action and do so in its name. This, of course, could have the effect of producing many new saboteurs.

2. *Preexisting cleavages* derived from socioeconomic differences, factionalism, and personal conflicts are often brought into a group and increase its fissiparous tendencies.

3. *Competition* among movement members, especially leaders, for economic, political, social, and psychological rewards. Benefits include followers, media attention, influence, funds from foundations and government, and the satisfaction of knowing that they are advancing movement goals. Competition causes factions, realigns followers, and intensifies efforts to recruit new participants and broaden the base of support.

4. *Ideological differences* are a major source of new groups. A strongly committed movement participant experiences an intensity of concern for ideological purity that people ordinarily feel only for threats to their personal or family well-being. Thus, for instance, environmental groups have regularly divided over disagreements about how much conventional culture and society must be changed to protect the environment, and how militant the tactics must be to achieve such changes. Some groups also split over how much to couple environmental protection with other issues, such as social reform or multinational corporations.

Most division occurs during the growth phase of a movement and contributes to its expansion, but it may occur at any time. Although they vary, new groups are often small and decentralized. Many make and implement decisions through consensus, while others are driven by strong individuals, if only temporarily. Sometimes existing organizations that are large and bureaucratic become movement groups, often undergoing profound changes in the process. Groups that are more likely to split pursue radicalism, reject authority, and/or reject organization. Despite the frequency of fission, most groups are dismayed when they split. But some embrace it. Redwood Summer (RS) was launched by Earth First! in 1989–1990 to protest the logging of California redwoods. Its coalition included peace and justice as well

as environmental and local watershed management groups; soon it became a separate entity. Participants were expected to take what they learned back to their own states and form distinct groups beholden to no one but themselves (Pickett, 1990, p. 8).

Having a variety of groups permits a social movement to do different things and reach out to different populations. Some of the participants in RS switched from protesting in the field to working for a referendum on protection of California forests. They then organized, temporarily, as the Environmental Protection Information Center, which functioned essentially as a coordinator of a new array of groups working to get voter support for their proposal. Moreover, although in the mid-1990s Earth First! renounced the use of violence to disrupt logging and resource development, other activists, notably Earth Liberation Front, emerged to advocate sabotage of projects that to them represent environmental risk.

Sometimes movements beget countermovements, which are themselves segmentary. Environmental activism prompted the "Wise Use" or property rights movement. Loggers, mill workers, ranchers, farmers, miners, natural resource developers, snowmobile and dirt-bike riders, property owners, libertarians, populists, political conservatives, and some religious fundamentalists organized into many different and often localized groups. They include the Center for the Defense of Free Enterprise, which takes a comprehensive approach to property use; the National Inholders/Multiple-Use Land Alliance, best known for demanding access to national parks and federal lands; the Blue Ribbon Coalition of recreation and off-road vehicle users in Pocatello, Idaho; the Women's Mining Coalition in Montana; the Pulp and Paper Workers Union; and the Pacific Legal Foundation in Sacramento, California. While coming from different places, they share the view that environmentalists and federal or state regulation of property in the name of ecosystem management threaten their interests. In the late 1980s and 1990s, they organized against such environmental legislation as wetland protection and the Endangered Species Act. They demanded multiple use of federal and state lands or the return of these lands to local or private ownership, with local management of natural resources.

POLYCENTRIC

By polycentric I mean that these movements have many leaders or centers of leadership, and that these many leaders are not ultimately directed or commanded through a chain of command under a central leader. The leaders, like the segments, are not organized in a hierarchy; they are "heterarchic." They do not have a commander in chief. There is no one person who can claim to speak for the movement as a whole, any more than there is one group that represents the movement.

Initially we termed these movements polycephalous, or "many headed," because the movements we studied in the 1960s had many leaders, and these were not organized in a hierarchical chain of command. We changed the term to polycentric because movement participants since the 1960s often claim to have no leaders and are dismayed when a situational leader appears to be translating inspiration and influence into command. But whatever the attitude toward leadership, social movements do have multiple centers of leadership.

While the press often picks out an individual to feature and quote, in reality it is rare for one person to be acknowledged by participants as the movement leader. Movement leaders are more likely to be charismatic than bureaucratic. People become leaders chiefly by inspiring and influencing others rather than by being chosen for their political or organizational skills. This leadership is usually situational, as leaders arise to cope with particular situations or episodic challenges in the life of a movement. Leaders must continue to prove their worth and are often challenged by rivals.

In the 1970s, Amory Lovins rose to prominence as an international leader in the movement to resist nuclear energy and to promote solar energy alternatives. In the late 1980s, Dave Foreman became famous as the leader of direct action to stop logging of old growth forests, and Petra Kelly captured attention as the leader of the West German Greens and an international exponent of environmentalism. In the 1990s, Ron Arnold, Alan Gottlieb, and Charles Cushman were recognized as founders and leaders of the Wise Use/property rights movement.

Although movement participants share common views, they also disagree. Different leaders reflect these disagreements. In the environmental movement, many believe that economic growth is incompatible with saving the environment; others think that growth and development can be sustained through efficient and benign or "soft" technologies. Some believe militant direct action is necessary to force change, and others want to work peacefully within established rules. Even in the relatively small Redwood Summer, some wanted to protest the U.S. action in the Persian Gulf War and attack big corporations, while others wanted to focus on stopping logging.

There is no one person or group able to make decisions that are binding upon all or even most of the participants in a movement. This makes negotiation and settlement difficult, if not impossible. Temporary leaders of a specific protest action may be able to reach agreement on concessions that will end the action, but they have no power to prevent anyone from launching new protests.

Leaders must carefully balance the need to demonstrate personal strength and ability with the need to heed the desire for democratic participation that drives many of their fellows. It is this desire that helps motivate movement participants to challenge established orders, and that is nourished in confrontation with such orders. Social movement groups are likely to try to make decisions by having everyone agree or consent, and leaders must learn how to work within this often long and laborious process. Thus a leader must often act as no more than a "first among equals," or *primus inter pares*. In the United States at any rate, such leaders find it useful to be known as someone who has risen up from the proverbial "grassroots," through ability and hard work, and who can speak for the people.

NETWORKED

The diverse groups of a movement are not isolated from each other. Instead, they form an integrated network or reticulate structure through nonhierarchical social linkages among their participants and through the understandings, identities, and opponents these participants share. Networking enables movement participants to exchange information and ideas and to coordinate participation in joint action.

Networks do not have a defined limit but rather expand or contract as groups interact or part ways.

Movement participants are not only linked internally, but with other movements whose participants share attitudes and values. Through these links, a movement can draw material support, recruit new supporters, and expand coordination for joint action. In the 1970s, protesters of nuclear and fossil fuel power plants and related electrical power lines formed alliances with organizations working to make and market solar and renewable energy technologies. In the 1980s, environmentalists established relationships with feminist, labor, and civil rights organizations to overcome their image as urban elites. In the 1990s, Wise Use members sought to expand beyond their rural and suburban bases in the West. They have joined with urban groups in eastern cities to oppose rent control laws and allied with the political and religious right to elect conservatives to public office.[3]

Linkages

Personal relationships connect participants in different groups through kinship, marriage, friendship, neighborliness, and other associations. Even if groups split, the personal connections remain. Often an individual will participate in more than one group. Leaders are particularly active in networking. Indeed, one way to become and remain a leader is to recruit participants and to link groups together, that is, to become a node connecting many groups.

Traveling evangelists and other visitors provide living links in the movement network. They carry information across the network, from group to group, and build personal relationships with those they visit. Many of the people recognized by the media as leaders of a movement are more accurately understood as its evangelists. Thus, while they may lead segments of a movement, directing the actions of its participants, they play a more significant role as those who evangelize across the movement as a whole. In a general sense, evangelists are those who zealously spread the ideology of any movement, promoting its ideas, reinforcing the beliefs of participants, exhorting them to

[3]Ron Arnold, personal communication, 1998.

action, and helping them recruit newcomers and form groups, raise funds, and mobilize against opponents. Many are recognized leaders, who draw crowds when they visit different places. Some are ordinary participants who write about their travels and visits in movement newsletters. In the late 1960s and early 1970s, students often traveled across the United States and western Europe by navigating movement networks, helped by local people who gave them contacts elsewhere.

It is not only those famed as evangelists who travel movement networks, visiting its various segments. Ordinary participants do this as well, and in the process also help to vitalize the networks and carry ideas to and fro across them, including by writing trip reports in movement newsletters. In the late 1960s and early 1970s, students involved in what was called the "counterculture," traveled across the United States and to Western Europe by navigating networks of what they sometimes called "affinity groups." They would be helped by people at local centers of information, called "switchboards." These would tell them where they could find affinity groups to live with for a time and where they might find new switchboards and affinity groups when they moved on. From the 1960s through the 1990s, people moved along such networks to participate in demonstrations or meetings launched by movement segments.

Large gatherings for conventions, conferences, workshops, "teach-ins," and demonstrations allow participants to learn and share ideas, and to act on them. Through participation in gatherings, people not only learn movement ideology and demonstrate their commitment to the cause, they also make or reestablish relationships with each other. Conversely, mobilizing people to attend gatherings through their local groups reinforces movement linkages. In recent years, a growing way of gathering and linking an array of diverse environmental, rights, and labor activists has been to call these activists to protest at meetings of world leaders and managers held to address global economic and resource issues, from global trade to climatic change and genetic engineering.

Communications technologies, such as the telephone, radio and television talk shows, letters, newsletters, and membership magazines, allow individuals to extend their reach far beyond their own group.

Since the mid-1980s, email and the Internet have been added to this repertoire. Individuals and groups reinforce and extend their relationships, consult with each other, and share information and interpretations. This helps them to coordinate their actions and act jointly, even over long distances. Email and the Internet provide the main channels through which people have been mobilized to protest at the global trade and resource management meetings mentioned above. People and groups, such as the Independent Media Center (IMC or indymedia), have been organizing in what itself has become a grassroots movement to produce and distribute reports via the Internet and other media about such protests (Stringer, 2000).

The web is aptly named. With the advent of the Internet, movement participants are now organizing "cyberconferences," or "virtual conferences," and exchanging information and ideas through email and web sites. Many environment/ecology groups have web sites, as do the Center for the Defense of Free Enterprise, a main coordinating node in the Wise Use network, and the Heartland Institute, a Wise Use think tank working to counter environmentalist positions on environmental risks such as global warming.[4]

Linkages and Information Sharing

Movement participants use these personal relationships, traveling evangelists, gatherings, and multimedia communication technologies to share the information that enables them to act in concert.

By the late 1980s, among the most important types of information shared by participants in both the environmentalist movement or the Wise Use/property rights movement were about the activities, ideas, "leaders," and organization of the other. One function of the conferences held by each was, indeed, to communicate this information and to arouse their fellows to expose and combat their opposition. It is interesting that each movement attacks the legitimacy of the other by claiming that the other is not really a popular movement, but instead a conspiracy. Thus, Wise Use members listen to speakers and read handouts detailing the activities of "ecogroups," showing how

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[4]Web site addresses are listed at the end of this chapter.

these groups are "trashing the economy" and promoting "socialist" agendas, "neopaganism" or one world government under the guise of environmental protection. Environmentalists listen to speakers and read handouts claiming that the Wise Use movement is not a grass-roots organization, as its leaders claim, but instead the creature of a few manipulators and "slick foxes" fronting for big and polluting in-dustry, and oil, mining, timber, and other resource development in-terests.

INTEGRATING FACTORS

The segments in social movement networks are also integrated by what they share or hold in common. These include a shared opposi-tion and ideology. These factors complement each other and help constitute the culture of the movement.

Shared Opposition

The recognition or perception of an external opposition helps diverse movement groups to unite and to expand. A movement grows with the strength of its opposition, much as a kite flies against the wind. Opposition creates a sense of solidarity, an "us" against "them." In many instances, movement participants see their cause as a small and heroic David against the Goliath of the establishment. As "under-dogs," they must put aside their differences and work together.

When movements face countermovements, such as the environmen-tal versus the Wise Use movement, each wages a propaganda war against the other, using the threat of one to mobilize the other. Envi-ronmentalists warn that opponents are growing in power; their lead-ers "want to destroy the environmental movement" (Western States Center, 1993, p. 1), and their hidden supporters are the industrialists and developers who wish to exploit the environment for narrow eco-nomic gain. Wise Use theorists Arnold and Gottlieb argue in public addresses, in publications (Arnold and Gottlieb, 1993, pp. 53–77), and online (www.cdfe.org) that the environmental movement has close ties to government agencies and big foundations, a powerful combi-nation requiring committed and united counteraction by the "citizen groups" sharing Wise Use ideas.

Both of these movements regularly research and "expose" each other. Wise Use member Charles Cushman alerts his National Inholders Association and Multiple-Use Land subscribers to environmentalist threats through his occasional newsletters. Barry Clausen, a private investigator hired by timber, mining, and ranching interests to investigate Earth First! wrote *Walking on the Edge: How I Infiltrated Earth First!* to expose it as an "ecoterrorist" organization that threatens the lives of loggers and miners and dupes ordinary environmentalists (Clausen, 1994). Dave Mazza, a professional investigator and environmental activist, wrote about the connection between Wise Use and the Christian Right movements (Mazza, 1993), while Carl Deal published *The Greenpeace Guide to Anti-Environmental Organizations* (1993). William Burke surveyed Wise Use activities in New England (1992), and the Wilderness Society commissioned MacWilliams Cosgrove Snider, a media and political communications firm, to study and report on the capabilities and limitations of the Wise Use movement (1993). Arnold and Gottlieb countered by claiming that the research was funded by a few private foundations not to advance understanding but rather to destroy the movement.

Since at least the 1990s, an increasingly broad array of environmental, rights, social justice, farm, and labor activists, as well as anticapitalist anarchists, have worked in various ways to define multinational corporations and international banking, trade, and economic-development organizations as threats to human welfare and environmental health, because of their pursuit of global economic integration and growth. These activists promulgate their ideas about these global threats through personal contact, print media, and especially the Internet.[5] Thus informed, the activists use major worldwide meetings of officials of the international organizations as forums to gather in protest and publicly communicate the threats they perceive. Their often militant demonstrations force responses from police and local governments, which then provide new opposition against which they can converge. One noted example took place in Seattle, Washington, from late November to early December 1999 at a meeting of the World

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[5]See http://indymedia.org and http://www.zmag.org/globalism/globalecon.htm.

Trade Organization (see De Armond, 2000, and Chapter Seven of this volume).

Shared Ideology

Movement ideology operates on two levels. All participants share basic beliefs or core themes, which are sometimes articulated as slogans or aphorisms. The ecology movement used such concepts as ecosystem, interdependence, limited resources, renewable resources, spaceship earth, and no-growth economy. Wise Use has employed the concept of balance—the harmonizing of economy *and* ecology. At another level is a myriad of different interpretations and emphases on these themes. Disagreement may generate splits, but shared beliefs contribute to a sense of participating in a single movement. Sometimes these unifying tenets become master concepts that shape the discourse not only of movements, but of society as a whole. Once ecology passed into the popular lexicon the prefix "eco" became widely used to give new meaning to other words (e.g., ecofeminism). Sometimes beliefs or slogans change over time. Between the 1960s and the 1990s *ecology* became *environmentalism*, and after the Green movement became popular in Germany in the late 1970s and early 1980s, "green" became a synonym for both of these.

Core beliefs can be shared because they are ambiguous and flexible, and they vary locally because they can be changed situationally. In 1972, biologist and early environmental evangelist René Dubos coined the term "thinking globally, acting locally" to warn that programs to protect the global environment cannot easily be translated everywhere into local actions but must be tailored to suit local ecological, economic, and cultural conditions (Dubos, 1981). By the 1980s, environmentalists had given the phrase multiple meanings. Some used it to encourage people to act locally on environmental problems in expectation that actions would combine to produce desirable global results. Some used it to imply that global exigencies override local ones. Some used it to claim that local actions serving local causes helped meet the challenge of global poverty and pollution (Gerlach, 1991).

In their efforts to build alliances across movements, activists search for common interests and seek to express these through an encompassing ideology. For instance, environmentalists have advanced the theme of environmental justice to support collaboration with civil and human rights groups and probably also to overcome the criticism that environmentalism is a movement of the affluent. Thus, in January 2001 the Sierra Club announced on its web site that it is working with the Earth Day 2001 Network and Amnesty International to "highlight human rights abuses and environmental destruction associated with fossil fuel extraction." According to the announcement, these and other groups will work in a campaign

> to help the world's marginalized and powerless communities defend themselves against the alliances of multinational corporations with undemocratic and repressive regimes.[6]

Participants in the disparate movements protesting the environmental and social costs of economic globalization are also eschewing the idea that they are *against* globalization in favor of the idea that they are *for* global justice.

It is through their production and use of such ideas and symbols, and their ongoing efforts to reshape them to meet their evolving interests and changing challenges, that participants in movements help coordinate the actions of their various groups and collaborate with other movements. It is this that helps make it possible for groups to share leaders and evangelists, to coalesce temporarily for specific actions, to maintain a flow of financial and material resources through both bureaucratic and nonbureaucratic channels, to identify and organize against external opposition, and to unite in common purpose.

ADAPTIVE FUNCTIONS

The type of organization we here describe as SPIN has often been labeled disorganized, poorly organized, loosely organized, or underdeveloped—and thus it has been denigrated or criticized not only by opponents or observers but at one time by movement participants. A

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[6]From the web site for the Sierra Club's human rights campaign.

common assessment has been that this type of organization as well as the movements themselves represent lower stages in organizational or cultural evolution. It is said that in time, groups or societies organized so loosely will evolve to become centralized bureaucracies or states, because centralized bureaucracies are more efficient, more adapted, more advanced. Our argument against this assessment is that SPINs exhibit a number of properties that are adaptive under certain conditions of turbulence.

The SPIN style of organization supports rapid organizational growth in the face of strong opposition, inspires personal commitment, and flexibly adapts to rapidly changing conditions. It is highly adaptive for the following reasons.

1. It prevents effective suppression by the authorities and the opposition. To the extent that local groups are autonomous and self-sufficient, some are likely to survive the destruction of others. This is also true of leaders; some will survive and even become more active and radical when others are removed, retired, or co-opted. For every group or leader eliminated, new ones arise, making movements look like the many-headed Hydra of mythology. It is difficult to predict and control the behavior of the movement by controlling only some of these components. In the 1960s and 1970s, authorities used the metaphor of trying to grab Jell-O to portray their difficulties in investigating and controlling a variety of protest movements. In 2001, an FBI agent used the same metaphor to describe efforts even to find members of the Earth Liberation Front.[7]

Even with suppression, burnout causes casualties. Having multiple groups limits the consequences of burnout. During the energy conflicts of the 1970s, when one group of power line protesters despaired of stopping line construction, another group took up the challenge.

2. Factionalism and schism aid the penetration of the movement into a variety of social niches. Factionalism along lines of preexisting socioeconomic or cultural cleavages supplies recruits from a wide range of backgrounds, classes, and interests. Groups can be formed in many different sectors or communities. Redwood Summer and Earth First!

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[7]David S. Jackson, "When ELF Comes Calling," *Time*, January 15, 2001, p. 35.

recruited young adults who could afford to take personal risks. The Environmental Protection Information Center attracted Californians, mostly white, from the middle and upper classes, whose politics were more moderate than that of other environmental groups. Many Native American tribes are also organizing to protect their rights to natural resources. Some hunters of waterfowl and big game have allied themselves with nature conservancy and other environmental organizations to obtain and protect wetlands and other habitats for the wildlife they appreciate in different ways (Gerlach, 1995).

Wise Use is also diverse. It hosts groups of ranchers and farmers, loggers, miners, recreational vehicle users, land developers, other property rights advocates, and also hunters and anglers. While some Wise Use groups attract libertarians and free market advocates, others attract religious fundamentalists worrying that environmentalism is a type of neopaganism.

3. Multiplicity of groups permits division of labor and adaptation to circumstances. The greater the differentiation of groups, the more likely the movement is able to offer something for every sympathizer to do to further the movement's goals. In the environmental movement, some groups take direct physical action to prevent loggers from cutting down redwoods in Northern California or red and white pines in Minnesota, and other groups work with lawyers and public relations specialists to persuade courts and legislatures to block this logging. In Minnesota in 1997 and 1998, a group of Earth First! activists asked the founder of another group, Earth Protector, to use legal action to complement their direct demonstrations against logging in the Superior National Forest (Grow, 1998). In Northern California, opposition to logging old growth redwoods in the privately held Headwaters Forest has effectively included both the direct actions of Earth First! and the legal and legislative operations coordinated by the Environmental Protection Information Center. Wise Use has many segments: corporate and industry interests who contribute legal and financial resources, issue entrepreneurs who act as information clearinghouses and mobilizers of public responses, and individuals who worry that their way of life is threatened by environmental regulation (Switzer, 1996, 1997).

4. Segmentary, polycentric, and networked organization contributes to system reliability. Failure of one part does not necessarily harm the other parts since these are not connected (Landau, 1969). Instead, groups learn from failures and are free to disavow parts of the movement that fail. Just as one movement group is ready and able to take over the functions of another when it is no longer viable, so can a group disavow another if the latter's actions put the former at risk, or copy another if its actions prove successful.

5. Competition between groups leads to escalation of effort. When one group or leader attracts more attention than another, the latter often steps up its activities to regain prominence. When a movement group threatens established institutions, they may respond by negotiating with a more moderate group, making gains for the movement and building outposts in the established order. Often, the more threatening group accuses the dealmakers of selling out. This may motivate the latter to renew its militancy or to demand more from the establishment. The process repeats, opening new fronts while consolidating old gains. In the 1970s, a leader of a Minnesota branch of a mainline environmental organization, the Isaac Walton League, urged legislators to pass a bill to establish the Boundary Waters as a Canoe Area Wilderness and exclude motorized travel by saying that if the "kids" do not see that they can protect the environment by working within the system, they will join radical groups that act more "on emotion." In an interview, he said that he was motivated to lead this legislative action to prove wrong the young ecology activist who called him an "Uncle Tom" on conservation efforts.

6. SPIN organization facilitates trial-and-error learning through selective disavowal and emulation. Movement groups challenge established orders and conventional culture both in the ideas they espouse and in the tactics they use to promote these ideas. Through trial and error come social and cultural forms that prove to be successful and adaptive. Because the groups are connected in a network of social relationships and information flows, knowledge about successes and failures flows rapidly from one group to another. While some environmental groups alienated loggers and millers, others sought to work with these loggers and millers by arguing that it was the big corporations who had depleted the forests of harvestable trees to make short-

term profits. When the environmentalist call for no-growth was rejected by people because it appeared to threaten their economic opportunity and well-being, some environmental groups proposed the alternative idea of "sustainable development" through appropriate technology and resource management. When people worried about the consequences of not building more nuclear or fossil fuel energy facilities, proponents of solar energy took this as an opportunity to make and market solar technologies.

7. SPIN promotes striving, innovation, and entrepreneurial experimentation in generating and implementing sociocultural change. Environmental groups led the way in promoting the conservation of resources and recycling of waste. They developed new approaches to teaching about ecology; involved children and adults in monitoring water quality in lakes and rivers; helped to persuade government, foundations, and private firms to institutionalize new approaches; pushed industries to use less-polluting and more-resource-efficient technologies; and pushed government to legislate environmental protection. By militantly resisting fossil and nuclear technologies and promoting the use of solar energy technologies, environmental groups have encouraged both government and private industry to rethink the future of nuclear energy (Gerlach, 1978, 1979; Gerlach and Eide, 1978). Since the 1980s, environmental groups across the world have taken the lead in warning governments and public bodies about the causes and risks of global climatic and other environmental change, and have done much to promote agreements among nations to reduce and control emissions into the atmosphere and oceans and other great bodies of water. Wise Use has both complemented and challenged the environmentalist agenda. Its demands for inclusion in decisionmaking have helped open the process and fostered a debate over how to balance environmental protection and economic development and established the idea that development should be sustainable not only ecologically, but also socially and politically (Gerlach and Bengston, 1994).

CONCLUSION

Social movements that are segmentary, polycentric, and networked have a very effective form of organization. In particular, this form

helps its participants to challenge and change the established order and to survive overwhelming opposition. It makes the movement difficult to suppress; affords maximum penetration of and recruitment from different socioeconomic and subcultural groups; contributes to system reliability through redundancy, duplication, and overlap; maximizes adaptive variation through diversity of participants and purposes; and encourages social innovation and problem solving. SPINs may well be the organizational form of the global future, the one best suited to reconcile the need to manage globally and locally, comprehensively and democratically, for the common good as well as individual interest, institutionalizing ecological and economic interdependence as well as ethnolocal independence.

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Web Addresses

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Earth First! (www.envirolink.org/orgs/ef)

The Environmental Protection Information Center (www.igc.org/epic/)

Environment '97 (www.environment97.org/framed/village/index.html)

The Heartland Institute (www.heartland.org)

Independent Media Center (http://indymedia.org)

Natural Resources Defense Council (www.nrdc.org/field/enashrae/html)

Protest.Net (www.protest.net)

Public Good Project (http://nwcitizen.com/publicgood)

Sierra Club (www.sierraclub.org/human-rights)

Z Net (www.zmag.org/Globalism/GlobalEcon.html)